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THE

ABORTIVE TREATMENT OF SYPHILIS.

BY

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THE essential nature of syphilis has not, as yet, been definitely determined. It seems probable, in the light of modern pathology, that it will be found to depend upon a specific microbe, but that microbe has not yet been isolated or cultivated, or distinctly demonstrated in any way, either clinically, experimentally, or microscopically. The treatment of syphilis cannot, therefore, be based scientifically upon anything but clinical experience. Such experience, however, points so unequivocally to the employment of some form of mercury throughout almost the entire course of the disease, that as regards this main point there are practically no differences of opinion among living syphilographers. Whether we assume that syphilis has to be classed with the exanthemata as a specific eruptive fever, in which case the mercurial may be regarded as a specific antidote to the syphilitic virus; or believe that the phenomena of the disease are due to the entrance into the economy and the multiplication therein of a certain protoplasmic mass—the so-called syphilitic cell—in which case the effects of the drug may be attributed to its action in promoting

destructive metamorphosis; or whether, confessing ignorance, we simply appeal to the history of the therapeutics of syphilis and select the drug which we know to have been of the greatest value, we are equally led to employ some form of mercury. There is also but little difference of opinion as to the general method of its employment. Whether given as an antidote, an alterative, a "tonic," or empirically, small doses administered over long periods, with the idea of producing in each case the full physiological effects of the remedy while avoiding its toxic action, represent the views of the vast majority of specialists.

When, however, we approach the subject of the proper period at which to begin its administration we meet at once with a wide divergence of opinion. Mr. Jonathan Hutchinson, unquestionably one of the ablest of living syphilographers, has recently reiterated, under the above attractive caption, the views which he long ago expressed regarding the early administration of mercury in syphilis, claiming that by the prompt employment of the drug in cases of chancre, and its subsequent continuous use, the secondary stage of the disease may be suppressed or rendered "abortive."[1] His general propositions will undoubtedly meet with universal acceptance. When he states that in cases in which the induration

[1] The Lancet, January 31, p. 174. Mr. Hutchinson, among other conclusions, stated his belief: "That it is impossible to begin the administration of mercury too soon, and that it should be resorted to without loss of time in all cases in which a chancre shows a tendency to indurate; that many cases of indurated chancre, treated early by mercury, never show any of the characteristic symptoms of the secondary stage.

of the sore is well characterized and considerable, it always yields quickly and definitely to the influence of mercury; that we never see sores remain typically hard while the patient is under that influence; that in cases in which high temperatures have been observed in syphilis, they always promptly subsided under the use of mercury; and that when the patient receives no treatment until his eruption is well out, mercurial medication will usually, in the most definite manner, cause the eruption to disappear, every one having experience in the treatment of this disease must undoubtedly agree with him. The probable truth of the view which he has always so warmly advocated, that syphilis is due to a specific particulate virus, or, in the language of to-day, to a living microbe, and that, therefore, it is quite within reason to speak of the "specific" or "antidotal" action of mercury, will also be generally, though not universally, admitted. But when we come to consider his advocacy of the administration of mercury, immediately upon the appearance of induration in the chancre, we meet with a serious practical difficulty which, it seems to me, Mr. Hutchinson hardly estimates at its full value. There is a widespread belief among syphilographers, that while there is a strong probability that an indurated sore will prove infecting, and that a soft suppurating sore will not, there are exceptions to both these rules, and that "there is really no absolute proof of the infecting nature of any given sore, but the fact of infection itself." Mr. Hutchinson, it is true, says that ever since the recognition of the facts that some chancres are not infecting, and that the phe-

nomenon of induration is the most valuable one by which to diagnosticate the true chancre, we have been in the habit of waiting until the character of the sore declares itself before beginning to use the specific, and adds, that many, and especially those of the French school, have advocated delay until constitutional symptoms in the form of eruption appear, but with this remark apparently dismisses this aspect of the subject.

I have always regarded his work and teachings with such admiration and respect that I have been led once more to consider the matter carefully, having for years taught and practised on the theory above mentioned, namely, that, all things considered, it was wisest to postpone the use of mercury until there was evidence of constitutional infection. Every surgeon whose work has brought him in contact with large numbers of cases of venereal sores, must recognize the fact rather unaccountably ignored by Mr. Hutchinson, but unquestionably familiar to him, that between the typical soft suppurating local sore and the distinctly indurated chancre there are large numbers of doubtful ulcers which partake of the characteristics of both: local sores with deceptive inflammatory hardening and true chancres with equally deceptive inflammatory softening, suppuration, and even loss of substance.

Nearly every specialist who has written upon the subject has recognized and been influenced by this well-known fact. Mauriac, in his excellent paper on the diagnosis of chancre, after describing the cartilaginous, elastic, sharply circumscribed resistance met with at the base of a true chancre, says that

when we find it we may "suspect very strongly that we are dealing with a syphilitic growth, although even those symptoms cannot be considered as infallible." Diday prefers to wait until secondary symptoms make their appearance before instituting mercurial medication, believing, with Zeissel and Sigmund, that the subsequent course of the case is either uninfluenced, or is actually rendered milder by this delay. Bumstead and Taylor assert very positively that "no course of mercury administered for a chancre, however thorough, or prolonged, is likely to prevent the subsequent evolutions of general manifestations. Some eminent authorities maintain the contrary, but their opinion has not been confirmed by our own experience. In the very many attempts that we have made to subdue the disease during the existence of the initial lesion, and prior to the appearance of general manifestations, we have always failed. Moreover, although the use of mercury retards the appearance, and probably ameliorates the severity of the secondary symptoms, yet it is a fact attested by many observers, ourselves included, that those cases ultimately do best in which the specific treatment is deferred until the secondary stage." Keyes says "general treatment should be commenced as soon as the diagnosis of syphilis is positive. To be positive on such an important point requires more evidence than is furnished by the simple physical characters of the sore, be they ever so positive. Diagnosis sufficiently accurate to commence treatment upon can only be made by confrontation—establishing the syphilitic disease in the person from whom the chancre was

derived—or by waiting until some positive corroborative signs of secondary lesions appear. When the diagnosis is sure, there is no need of further delay."

Van Harlingen, in the *International Cyclopædia of Surgery*, says, "as regards the period at which the administration of mercury should begin, it is now agreed by most syphilographers that nothing is gained by its too early administration. Given on or shortly after the appearance of the initial lesion, its effect is to delay and render irregular the definite generalized lesions, without preventing their eventual appearance. An element of confusion is thus introduced into the orderly evolution of the various manifestations, and occasionally the delay in their appearance gives rise to false hopes of a permanent cure, often rudely dispelled by an unexpected outbreak, or perhaps by the transmission of the disease to an innocent person."

Fournier, perhaps the most eminent living syphilographer, has recorded a case which bears most strongly upon the question under consideration. A female child, six years old, was said to have been infected with syphilis, during an attempt at rape. She had marked vulvitis, and upon the labia three grayish, shallow, indolent, indurated ulcers covered with a diphtheritic-looking membrane, and raised a little above the general surface. In both groins there were enlarged, multiple, lymphatic glands. He positively diagnosticated chancre, but, conforming to his custom in medico-legal cases, declined to testify for a few days. During this time, under a simple dressing, the symptoms disappeared, and the patient, who was carefully observed for several months, never

showed any subsequent signs of infection. Fournier believes that the case demonstrates that small inflammatory lesions may so closely resemble chancres as to deceive the most experienced surgeon, and adds that in medico-legal cases the diagnosis should not be made upon the local lesions alone, but should depend upon the development of constitutional symptoms.

It would be easy to multiply evidence to this effect, and I could from my own case-books give many examples of cases in which, if compelled to give an opinion, based upon the appearance at a given time of the local sore, I should have made the diagnosis of syphilis, although delay has, fortunately for the patients, demonstrated the innocent character of their troubles. Mr. Hutchinson, to be sure, says, with characteristic candor, that he must admit that the gross total of cases of primary syphilis which has been under his care has not been so much as that which falls to the share of specialists, particularly those holding hospital appointments, and that more patients come to him in the secondary stages than in the primary. This probably accounts for his somewhat too sweeping recommendation as to the early employment of mercury.

The surgeon who is daily called upon to give an opinion in cases which involve the whole future of the individual, his relations to the other sex, his determination toward celibacy or matrimony, his matrimonial relations if he should be already married, the question of the influence of paternity, the institution of a course of treatment extending over years, the diagnosis of any obscure visceral

troubles which he may develop later in life, the profoundly depressing mental effect which a knowledge of syphilitic infection usually has upon intelligent people—the surgeon, I say, who remembers these facts and recalls the views which I have above cited, as to the possibility of error, should surely hesitate about beginning a course of treatment which will possibly obscure or render altogether impossible the diagnosis.

While I am not disposed in the least to agree with those who believe there is positive advantage in delay as regards the subsequent course of the case, yet I do not think, on the other hand, that the gain from the immediate treatment during the primary sore is sufficient to counterbalance the doubt and uncertainty which that treatment often throws about the future life of the patient. It has been my custom to advise my pupils never to begin constitutional treatment for syphilis, unless they were prepared to swear positively and to demonstrate that that disease existed, and certainly the cases are comparatively rare in which a careful surgeon would be willing to take this position during the existence of the primary sore alone. I have recognized both in my teachings and practice a few necessary exceptions to this rule, which may be included under the following heads:

1. Where confrontation is possible and the sore is distinctly a typical one.

2. Where with a similar sore its continued existence would destroy or imperil the conjugal relations of two people or possibly the happiness of an entire family.

3. Sores with characteristic induration, but with

marked tendency to spread and involve important regions.

4. Sores in such conspicuous positions, as upon the lips or the nose, that their continuance would involve a general knowledge of the patient's condition.

With these exceptions I still believe, in spite of Mr. Hutchinson's teachings to the contrary, that it is the part of wisdom to wait until the development of glandular enlargement at some point removed from the initial lesion, and not, therefore, by any possibility a result of simple adenitis, demonstrates the constitutional character of the trouble. It is not necessary to wait for the syphilodermata. Treatment may be safely begun when, after a suspicious sore upon the genitals, consecutive enlargement of the epi-trochlear or post-cervical lymphatics takes place, and, beginning at this stage, I can cordially endorse all that Mr. Hutchinson claims for a mild continuous mercurial treatment as to its effects in suppressing or "aborting" subsequent symptoms. The argument which I have used as against the mercurial treatment of chancre applies with equal force to the local abortive measures which have from time to time been recommended. These include cauterization; excision; antiseptic measures; and various local applications of mercurial preparations by means of ointments, hypodermatic injections, or otherwise. Taking them in the order mentioned, their relative advantages and disadvantages seem to me to be as follows:

As to cauterization, it appears to me unquestionable that it can be of service in but a very small

proportion of venereal sores as they usually come under the notice of the practitioner. The publication of certain cases, such as the well-known one of Mr. Hill, who cauterized the torn frænum within twelve hours after the accident, and in whose patient syphilis developed at the usual time, and that of Clerc in proof of the uselessness of immediate ablution, has had a marked effect in influencing professional opinion upon this matter. The teachings of Ricord and Sigmund, who believed that cauterization within five days after contagion certainly prevented infection, have long since been shown to be misleading, as in those days local sores were not clearly differentiated from infecting chancres.

Sores which appear within five days after intercourse are rarely or never syphilitic, and this fact at once throws out 99 per cent. of Ricord's and Sigmund's alleged successful cases. In the remainder, in which cauterization was immediately applied, as in Mr. Hill's case, to a tear or abrasion during coitus with a person known to be syphilitic, there is, of course no certainty that the disease would have developed even if no local treatment had been adopted. The opinions of syphilographers vary greatly in regard to the value of this form of treatment. Keyes peremptorily rejects it as useless and unphilosophical with the remark that no amount of cauterization nor any local treatment can prevent the development of general syphilis after the poison has once been absorbed much less after the chancre has appeared. Hill and Cooper think it wiser to assume that we cannot indicate any period at which

syphilis is a local disease which can be extirpated by local treatment. Bumstead and Taylor believe that chancre is never a mere local lesion.

On the other hand, Mr. Hutchinson finds it difficult to believe that absorption of syphilitic virus is so rapid that there is no stage during which it remains limited to the seat of inoculation, and prefers to act as if this stage comprises the first week or ten days after contagion. Jullien remarks that, in spite of theoretical considerations as to the rapidity of absorption of the virus of syphilis, or of other contagious diseases, he still thinks we have no right to neglect whatever small chance may be offered by the employment of cauterization whenever the sore is seen during the first three days. Cornil says that we are not in possession of absolutely conclusive evidence upon this point, but that it is highly probable that the syphilitic virus inserted under the skin remains there a certain length of time without any other action than gradually to change the cells which are in immediate relation with it, and slowly to prepare them for the hyperplasia which soon constitutes the chancre. Auspitz, Unna, and Kölliker believe that the initial indurated sore is not to be considered as a symptom of general infection. The experience of the latter authors in the excision of chancres has encouraged them to believe that, in a small proportion of cases, general contagion may in this way be prevented.

Familiar with these opposing views, and striving to find a safe general rule for practice and teaching, I have for a long time thought it best to assume that a sore seen within a few days after its appearance,

and as yet unaccompanied by any enlargement of the inguinal glands, was still a localized lesion. If favorably situated—*i. e.*, upon the skin of the prepuce or of the genitals—I have advised its removal by excision, and in a large number of cases have practised it, picking up the sore and surrounding tissue with a pair of toothed forceps, and removing it by a single sweep of the knife, or by means of scissors curved on the flat, afterward dressing the wound with iodoform or boracic powder. When the patient refused this treatment, or when the sore was so situated that its removal would cause considerable pain, hemorrhage, or deformity, I have employed destructive cauterization with fuming nitric acid.

As regards protection from subsequent constitutional disease, my results have, on the whole, been unsatisfactory; but in a few cases—five, all told, with two more which are yet doubtful—I have succeeded in making my observations under unusually satisfactory circumstances. In these cases the patients came to me promptly upon the development of the sore, and sent to me, for examination, the women with whom they had had connection; evidence of syphilis being discovered in the latter, I excised the sores of the male patients, and cauterized the resulting wound with nitric acid. In three of these cases, microscopical examination by my friend, Dr. Simes, showed that the sores possessed the usual characteristics of hard chancres. In one of them slight glandular involvement had already shown itself; in the others it had not yet appeared. The shortest period intervening between the appearance of the sore and my inspection of it was twenty-four

hours, the longest five days. In two of the five cases, including the one in which there was slight glandular involvement, no further symptoms have ever developed; in the remaining three the appearance of constitutional symptoms was delayed from three to five weeks beyond the usual time, just as is the case from the mercurial treatment of chancre. The other two cases which I have mentioned are now under observation, and I have, within a few hours, had the opportunity of observing another interesting case of tear of the frænum during a suspicious intercourse.

It is only fair to add that, during the time I have been making these observations, I have had several cases in which excision was not performed on account of the anatomical seat of the sore, which I yet believed to be almost certainly specific, but which healed, and disappeared without the development of the slightest constitutional trouble. In these latter cases, however, I had no opportunity for confirming my diagnosis by confrontation. In all cases (and these comprise the majority which come for treatment) in which a week or more has elapsed since the development of the sore, and in which involvement of the dorsal lymphatics of the penis, and the inguinal lymphatic glands is observable, I reject cauterization as a routine method of treatment, on account of its undoubted uselessness at that stage in preventing constitutional disease; the pain which it causes; the inflammatory action which follows it, and which often produces enough œdema and swelling to cause phimosis, and thus convert an open sore into a hidden one; the subsequent effusion of lymph, which simulates true induration and confuses the

diagnosis; and, finally, the greater liability to the production of suppurative action in the ordinarily indolent bubo of syphilis.

It seems to me that by this plan of treatment I have given my patients whatever small chance there may be of avoiding constitutional disease, while at the same time exposing them to the minimum degree of local pain and disturbance. The so-called aseptic treatment of the initial lesion of syphilis seems to me a misnomer, so far as the essential character of the sore is concerned, unless it be meant to include only the thorough destructive cauterization of all portions of the infected tissue. Applied simply to superficial dressings placed over the chancre, it can refer only to the prevention of the development of pyogenic organisms upon the surface of the sore. As to the tendency of infecting chancres to suppuration is usually very slight, and their local significance is generally unimportant, we can hardly look here for advantages from the employment of aseptic or antiseptic methods which are at all commensurate with those obtained by the same methods in ordinary surgical conditions.

The method recently recommended by Dr. Edward Bronson, of New York, the local treatment by hypodermatic injection of mercurials beneath the base of the initial lesion and into the mass of the indurated lymphatic glands, is based almost exclusively on theoretical grounds. It appears to rest upon the view that mercury acts as an antidote when brought directly into contact with the syphilitic germs, and that this influence would probably be especially active if the drug were brought to bear

directly upon the local lesions which are the foci of infection during primary syphilis. If we believe that the virus remains localized for a time after inoculation, and is not disseminated through the general system, and that mercury acts by its germicidal influence, this treatment is not unphilosophical, but seems manifestly inferior to the more thorough plan of excising both the chancre and the enlarged lymphatics of the groin. The latter procedure would be less likely to result in local troubles, such as abscess or cellulitis, and would certainly be more effective.

My views upon the general subject of the abortive treatment of syphilis may accordingly be expressed as follows:

I. While it is unquestionably desirable to begin mercurial treatment at the earliest proper moment, and while that treatment undoubtedly either suppresses or renders milder the subsequent secondary manifestations, and while there is every reason to believe that in this way the liability to later or tertiary lesions is somewhat lessened, nevertheless the sum total of these advantages does not warrant the employment of mercury one moment before the diagnosis of constitutional disease is absolutely assured.

II. While in many cases that diagnosis can be made with a high degree of probability from the appearance of the primary sore alone, yet it cannot be said that all possibility of error is excluded until some general symptom, such as the enlargement of distant lymphatic glands, has shown itself.

III. The administration of mercury during the

existence of the primary sore, unaccompanied by general symptoms, for the purpose of suppressing or "aborting" syphilis, is not, therefore, justifiable, unless by confrontation the diagnosis can be confirmed, or unless there are urgent and unquestionable reasons for securing rapid cicatrization of the chancre.

IV. It is proper to employ cauterization or excision according to the site of the chancre, in cases in which it is seen very soon after its appearance, and especially when it is known to have followed intercourse with a syphilitic person. The chances of preventing constitutional infection in this way, while very slight, may yet be considered sufficient in such cases to counterbalance the disadvantages of the method, such as pain, swelling, the production of phimosis or of suppurating bubo, and the obscuring of the diagnosis by the resulting inflammatory exudation.

V. Aseptic or antiseptic measures, while harmless, cannot be considered especially indicated in the local treatment of chancre, and can, in all probability, have no true abortive influence.

VI. The local use of mercurials, hypodermatically or by inunctions, is perhaps worth a trial, but it is probably inferior to the more radical methods, based essentially upon the same principles, namely, excision and cauterization.

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